

Nau mai ki Hāhi Tautaiāo o Aotearoa!

A photograph of a lush forest with a paved path. The path is made of grey bricks and curves through the forest. There are many large trees with thick trunks and dense green foliage. The lighting is bright, suggesting a sunny day.

ECO CHURCH NZ

AN A ROCHA AOTEAROA NZ PROJECT

A ROCHA
AOTEAROA NZ

Why calculate your church carbon footprint?

- A starting point for emissions reductions
- Provide insights into church's biggest emission sources
- Foster a sense of working together as a community
- Ability to track over time and celebrate progress!

Why 360carbon?

- Tailored for church context
- Adapted for Aotearoa NZ
- Keep data all in one place

Dashboard


 [Group](#)

Your current carbon footprint

Test All for Test Church_Wlg1


(Footprint year: 1st January 2022 to 31st December 2022)

 [View](#)


 [Continue/Edit](#)

 [Start a new footprint for](#) ▶

Your Organisations

 [Add a new...](#)




Aotearoa Test Church – 7 
My 360°carbon Group



Test - charity – 1 
My 360°carbon Group



Test Church_Wlg1 – 1 
My 360°carbon Group

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-  [User Guide](#)
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Test Church_Wlg1

My 360°carbon Group

[← Back to Dashboard](#)

[▶ Start a new footprint](#) [✎ Edit](#) [🗑 Delete](#)

Carbon Footprints

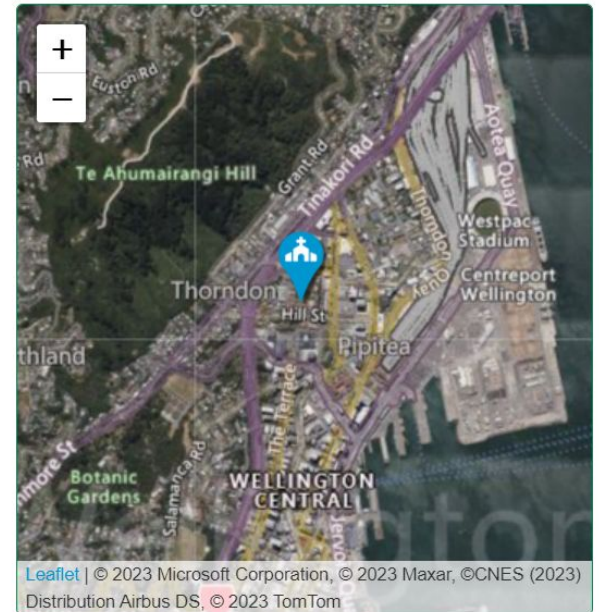
Test All

Emissions: 8.92 tCO₂ (Location) – 5.64 tCO₂ (Market)

Period: 01/01/2022 – 31/12/2022

Started: 27/03/2023

Location



- [i About 360°carbon](#)
- [📖 User Guide](#)
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New carbon footprint for Test Church_Wlg1

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 Every footprint covers one year – it's best to set the beginning of the footprint year to the start of your organisation's financial year. This means you'll find it easier to match up energy bills and other expenses.

 What would you like to name this footprint?

 When would you like this footprint to start?

Beginning of for one year.

 **Start Footprint**

Emission boundary

- Church and/or users of your facilities
- Buildings
- Travel
- All emission sources or a sub set?



You're currently working on the carbon footprint for: *Test Church_Wlg1*, for the period 01/01/2022 to 31/12/2022.

About Your Church

Please tell us about the people who use your church. This information will help us show you how your carbon footprint relates to the activity in your church. A church that is working hard to reduce its carbon footprint may use more energy as it grows... but still have a smaller footprint per person or per activity. You will need to decide who you are going to count, particularly for weekday usage – which users and organisations you include and exclude as using your buildings. For example, organisations renting the church hall, occasional events such as weddings, funerals, school visits, concerts etc. Once you have decided what to include and exclude, the important thing is to measure the same things each year to ensure consistency.

For the footprint year, how was your church used in a typical WEEK?

Sundays and Special Services

Number of people at Sunday services ?

50

For how long is the building occupied? ?

4

How many Sunday services a year? ?

52

Number of people at special services ?

For how long is the building occupied? ?

hours

How many special services a year? ?

Weekdays

If your church building is used at all during the week: ?

How many people use the building? ?

How many different activities are there? ?

How long, on average, do activities last? ?

hours

How many weeks a year do activities run? ?

Staff

If there are any staff (including clergy) who work in the church building during the week:

Number of staff ?

3

Total time staff are in the church each week ?

90

How many weeks a year do staff work? ?

Notes

Who are you including in your footprint? ?

Staff only at this time

Emission sources

- Energy
- Working from home
- Travel (ground and air)
- Expenditure
- Food and drink
- Waste and water use





You're currently working on the carbon footprint for: *Test Church_Wlg1*, for the period 01/01/2022 to 31/12/2022.

Energy

Please tell us about energy usage in all of your buildings for the footprint year. If you receive quarterly bills, and if those bills are based on estimates, enter the estimated amount of energy consumed – you can correct it later when more, finalised, information is available.

Ecotricity and Prime Energy are verified by Toitū Envirocare as CarbonZero suppliers. If your church uses either of these electricity providers enter consumption in kWh into the “CarbonZero” field.

If you have switched to these providers during your reporting year, enter the kWh for the period with your original provider in the “Electricity” field, and the kWh with Ecotricity or Prime Energy for the period within the reporting year in the “CarbonZero” field.

For the footprint year, what was your church's annual energy usage for each building?

Main Building Education house

Electricity kWh CarbonZero kWh

Natural Gas kWh

▸ Show more options

Does your main building have solar panels installed?

Calculate

Annual energy emissions:

Reset section

Location	Market
3.33 tCO ₂	3.33 tCO ₂

Save All

Next: [Work From Home](#)



You're currently working on the carbon footprint for: *Test Church_Wlg1*, for the period 01/01/2022 to 31/12/2022.

Work From Home

i The Work From Home tab uses data from the Aotearoa/NZ government for average emissions from staff working at home – all we need to know is the number of Full-Time Equivalent staff and the hours that they worked in the footprint year.
[Learn more](#) about how the Work From Home tab works.

For the footprint year:

Number of Full-Time Equivalent staff **?**

On average, how much time did each of your church's staff spend working from home?

Hours working from home each day

Days working from home each week

Weeks per year working from home

Calculate

Total Work From Home emissions: 117 kgCO₂

[Reset section](#)

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You're currently working on the carbon footprint for: *Test Church_Wlg1*, for the period 01/01/2022 to 31/12/2022.

Travel

There are two sections: "Staff" covers travel for church staff (clergy, etc.) as part of their work. "Congregation" covers how everyone who attends church gets to and from church. Download a copy of the [Travel Survey](#) to help you gather all the information that you need to fill in this section. Travel includes Sunday services and weekday activities.

For the footprint year, how many kilometres did members of the congregation and staff travel for church activities in a typical MONTH?

Staff Congregation

Diesel car	Petrol car	Hybrid car ?	Electric car ?
<input type="text" value="Kilometres per month"/>	<input type="text" value="160"/>	<input type="text" value="Kilometres per month"/>	<input type="text" value="Kilometres per month"/>
Motorbike	Bus	Train	Bicycle ?
<input type="text" value="Kilometres per month"/>	<input type="text" value="160"/>	<input type="text" value="Kilometres per month"/>	<input type="text" value="Kilometres per month"/>
On foot ?			
<input type="text" value="Kilometres per month"/>			

Calculate

Congregation travel emissions: 806 kgCO₂

Reset section

Annual travel emissions: 806 kgCO₂



You're currently working on the carbon footprint for: *Test Church_Wlg1*, for the period 01/01/2022 to 31/12/2022.

Flying

If staff or church members fly on church business or for church activities you can include those flights in your carbon footprint. You can calculate the carbon footprint of up to 20 flights. For return flights, set the date to the date of the outbound flight. The default date is set to six months after the beginning of the footprint period that you chose.

For the footprint *YEAR*, what flights were taken by your church?

Wellington International, Wellington, New Zealand [WLG] Auckland International, Auckland, New Zealand [AKL]

Return Economy 2 01/07/2022

+ Add a new flight

↻ Reset section

Calculate

Total flying emissions: 588 kgCO₂

- Select a category
- Select a category
- Accountancy and auditing
- Buildings and grounds
- Candles
- Church flowers
- Cleaning
- Communion bread and wafers
- Communion grape juice
- Communion wine
- Computer software and services
- Courses and training
- Disposable cups
- Furniture
- Hotels and similar accommodation
- Insurance
- IT equipment and electronics
- Legal services
- Magazines and books
- Medical Equipment
- Other professional services
- Paid event catering
- Postage
- Professional Printing
- Commercial rentals
- Residential Rentals
- Stationery
- Telephone and internet services
- Web hosting



You're currently working on the carbon footprint for: *Test Church_Wlg1*, for the period 01/01/2022 to 31/12/2022.

Expenditure

It is possible to estimate carbon emissions relating to expenditure across a number of categories – you can [read more](#) about how we do that in the User Guide. The best source for information for this section is your church accounts. If you don't use a certain category, simply leave it blank.

For the footprint YEAR, how much did your church spend in the following categories?

Add an expenditure category:

Accountancy and auditing	Church flowers	Cleaning
2500	500	350

Calculate

Total expenditure emissions: 305 kgCO₂

Reset section

Save All

Footprint saved

Next: **Food**

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- User Guide
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- Terms & Conditions



You're currently working on the carbon footprint for: *Test Church_Wlg1*, for the period 01/01/2022 to 31/12/2022.

Food

Please tell us about the food and drink that you serve at services and other events. The result here is an estimate based on the best available figures for the carbon footprint of different foods.

Actual figures may vary according to how far the food you buy has travelled to get to you, whether it is from local sustainable sources, whether you use produce that is in season and even whether you grow your own!

Drinks and snacks – for the footprint year, how many of the following were served in a typical WEEK?

Cups of tea ?

20

Cups of coffee ?

30

Cups of hot chocolate or Milo ?

Litres of milk

3

Glasses of fruit juice ?

Packets of biscuits ?

5

On a MONTHLY basis, on average, how many people attend shared meals?

Number of people

30

Based on the spread you typically have, what percentage is: ?

Beef

%

Lamb

%

Poultry

25

Pork

%

Processed Meat

25

Shellfish

%

Crayfish

%

Fish

%

Vegetarian

50

Vegan

%

Calculate

Total food emissions: 666 kgCO₂

Reset section



You're currently working on the carbon footprint for: *Test Church_Wlg1*, for the period 01/01/2022 to 31/12/2022.

Waste & Water

Please tell us about how you dispose of waste, and how much water you use.

We have assumed that an average bin bag weighs about 8kg. Wheelie bins are listed with the average weight of waste that each capacity would carry. The [User Guide](#) has more details about wheelie bin sizes.

For the footprint year, where did your church's waste go in a typical MONTH?

Recycled (Dry waste) ?

4

80l wheelie bin (average 3.3kg)



Other waste to landfill ?

4

240l wheelie bin (average 9.9kg)



Food (separated and composted) ?

140l wheelie bin (average 5.7kg)



For the footprint YEAR, how would your church prefer to report water consumption?

By total amount spent on water ?

By the quantity of water used (m³) ?

– or –

Calculate

Total waste & water emissions: 101 kgCO₂

Reset section

Data sources & collation

- Energy bills
- Church accounts
- Conversations with staff (working from home, travel, estimates for waste)
- Surveys (food, travel)
- Emission factors - NZ based

Results

- Carbon footprint results page
- Downloadable pdf summary report

Carbon Footprint for Test Church_Wlg1

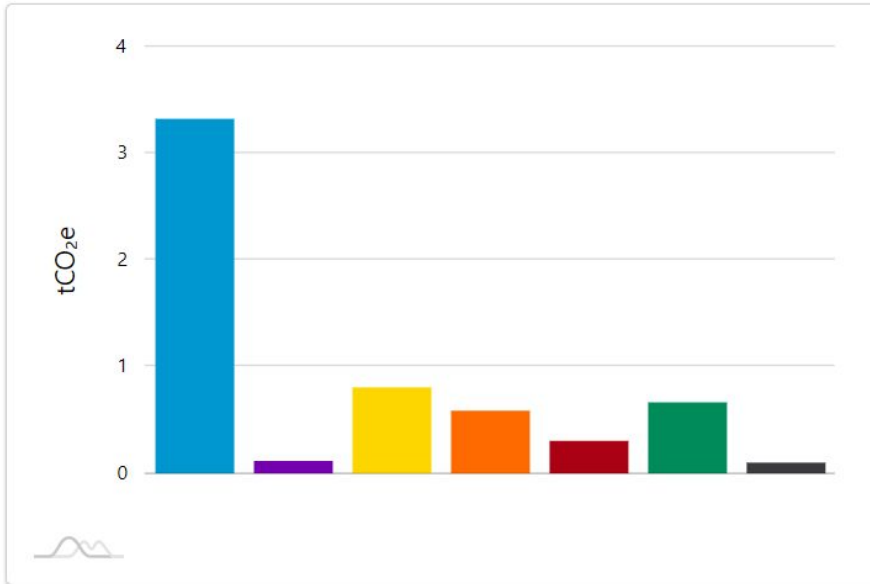
Test All

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- [⚙️ Settings](#)
- [📄 Download PDF](#)
- [🗑️ Delete](#)

2022

Total Annual Emissions: 5.91 tCO₂



A total of 2,756 people visited your church giving an average carbon footprint of **2.14 kgCO₂** per person.



The buildings were used for a total of 4,888 hours for an average footprint of **1.21 kgCO₂** per hour.

💡 Energy: 3.33 tCO₂

[▷ View details](#)

🏠 Work From Home: 117 kgCO₂

[▷ View details](#)

🚗 Travel: 806 kgCO₂

[▷ View details](#)

✈️ Flying: 588 kgCO₂

[▷ View details](#)

📁 Expenditure: 305 kgCO₂

[▷ View details](#)

🍴 Food: 666 kgCO₂

[▷ View details](#)

🗑️ Waste & Water: 101 kgCO₂

[▷ View details](#)

Carbon Footprint for Test Church_Wlg1

Total Annual Emissions: 5.91 tCO₂

Between 1st January 2022 and 31st December 2022:

- A total of 2,756 people visited your church giving an average carbon footprint of **2.14 kgCO₂** per person.
- The buildings were used for a total of 4,888 hours for an average footprint of **1.21 kgCO₂** per hour.

Notes:

Staff only at this time

Energy: 3.33 tCO ₂			
<i>Main Building: 3.33 tCO₂</i>			
Item	Quantity	Factor	Emissions
Electricity	25,357 kWh/year	0.131 kgCO ₂ e/kWh	3.33 tCO ₂
Work From Home: 117 kgCO ₂			
Item	Quantity	Factor	Emissions
Work From Home for 1.5 FTE	174 days	-	117 kgCO ₂
Travel: 806 kgCO ₂			
<i>Congregation: 806 kgCO₂</i>			
Item	Quantity	Factor	Emissions
Average petrol car	1,920 km/year	0.265 kgCO ₂ e/km	508 kgCO ₂
Bus	1,920 km/year	0.155 kgCO ₂ e/km	298 kgCO ₂
Flying: 588 kgCO ₂			
Wellington International Auckland International (960 km, economy class return)		0.306 kgCO ₂ e/km	588 kgCO ₂
Expenditure: 305 kgCO ₂			
Item	Quantity	Factor	Emissions
Accountancy and auditing	\$2,500/year	0.058 kgCO ₂ e/\$	145 kgCO ₂
Church flowers	\$500/year	0.164 kgCO ₂ e/\$	82 kgCO ₂

Cleaning	\$350/year	0.223 kgCO ₂ e/\$	78 kgCO ₂
Food: 666 kgCO ₂			
Item	Quantity	Factor	Emissions
Cups of tea	1,040/year	0.001 kgCO ₂ e/cup	1 kgCO ₂
Cups of coffee	1,560/year	0.004 kgCO ₂ e/cup	7 kgCO ₂
Litres of milk	156/year	1.510 kgCO ₂ e/litre	236 kgCO ₂
Packets of biscuits	260/year	0.868 kgCO ₂ e/item	226 kgCO ₂
Poultry	90 portions/year	0.437 kgCO ₂ e/portion	39 kgCO ₂
Processed Meat	90 portions/year	1.282 kgCO ₂ e/portion	115 kgCO ₂
Vegetarian	180 portions/year	0.235 kgCO ₂ e/portion	42 kgCO ₂
Waste & Water: 101 kgCO ₂			
Item	Quantity	Factor	Emissions
Recycled (Dry waste)	48 × 80l wheelie bins/year	0.021 kgCO ₂ e/bin	3 kgCO ₂
Other waste to landfill	48 × 240l wheelie bins/year	0.207 kgCO ₂ e/bin	98 kgCO ₂

Share this footprint

<https://360carbon.org/en-nz/footprint?id=8b6fw64es2q>

Market-based: emissions are calculated based on the tariff you are buying (e.g. 100% renewables = zero emissions).

Location-based: emissions are calculated using the average grid emissions factor for your location.

What next?

- Set goal(s) & reduction pathways together as a community
- Start with areas where changes can be made quickly
- Some progress no matter how small is key
- Celebrate your successes and share your stories!

Actions

Energy:

- Establish end of day routine (turn off appliances, lights)

Travel:

- Set aside a Sunday or church season to focus on low C travel options to/from church

Food:

- Encourage vegetarian/vegan shared meals

Why offset?

- Reduce first what you can, offset the rest
- Offsetting can help compensate for those carbon emissions we can't yet avoid
- Climate Stewards' offsetting projects
- Climate Justice: can be linked to wider Sustainable Development Goals & bring benefits to communities alongside mitigating carbon



Questions

Breakout group question

- **What kind of initiatives or activities would you like to do/see to help your community move towards a lower carbon lifestyle?**

Nominate one person from your group to report back on one idea to share with the wider group

For more information

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